wireless RERC

Rehabilitation Engineering Research Center for
Wireless Technologies

VIA ECFS

December 21, 2007

Marlene H. Dortch, Secretary
Office of the Secretary
Federal Communications Commission
445 12th Street, S.W.
TW-A325
Washington, D.C. 20554

Re: *Amendment of the Commission's Rules Governing Hearing Aid-Compatible Mobile Handsets*

Dear Ms. Dortch:

Enclosed for filing in the above referenced Notice of Proposed Rulemaking (NPRM) published at 72 Fed. Reg. 65494, are comments of the Rehabilitation Engineering Research Center for Wireless Technologies (Wireless RERC).

Should you have any questions concerning this filing, please do not hesitate to contact me via phone (404-385-4618) or e-mail (paul.baker@cacp.gatech.edu).

Respectfully submitted,

Paul M.A. Baker
Project Director, Policy
Rehabilitation Engineering Research Center for Wireless Technologies (Wireless RERC)
Director of Research
Center for Advanced Communications Policy
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Enclosure

Before the
Federal Communications Commission
Washington, D.C. 20554

In the Matter of	)	
	)	
Amendment of the Commission's Rules Governing Hearing Aid-Compatible Mobile Handsets	)	WT Docket No. 07-250
	)	
Section 68.4(a) of the Commission's Rules Governing Hearing Aid Compatible Telephones	)	WT Docket No. 01-309
	)	
Petition of American National Standards Institute Accredited Standards Committee C63 (EMC) ANSI ASC C63™	)	

COMMENTS OF THE REHABILITATION ENGINEEERING RESEARCH CENTER FOR WIRELESS TECHNOLOGIES (WIRELESS RERC)[1]

The Rehabilitation Engineering Research Center for Wireless Technologies (Wireless RERC), hereby submits the following comments in response to the Second Report and order and Notice of Proposed Rulemaking adopted on November 7, 2007, WT Docket Nos. 07-250 and 01-309 on Amendment of the Commission's Rules Governing Hearing Aid-Compatible Mobile Handsets, Section 68.4(a) of the Commission's Rules Governing Hearing Aid Compatible Telephones, and Petition of American National Standards Institute Accredited Standards Committee C63 (EMC) ANSI ASC C63™.

[1] The **Rehabilitation Engineering Research Center for Wireless Technologies**, a research center focused on promoting equitable access to and use of wireless technologies by people with disabilities, exploring their innovative applications, and encouraging the application of universal design practices in future generations of wireless technologies, is sponsored by the National Institute on Disability and Rehabilitation Research (NIDRR) of the U.S. Department of Education under **grant number H133E060061**. The opinions contained in this paper are those of the authors and do not necessarily reflect those of the U.S. Department of Education or NIDRR.

The Wireless RERC commends the FCC for its efforts to ensure that access to mobile telephones is available to all Americans, particularly those with disabilities. Currently it is estimated that more than 18% of the population has some type of disability[2] including 18.6 million with visual disabilities[3], 31 million with hearing loss[4] and 25 million with physical disabilities that impinge on mobility[5]. Further, approximately 35 million (12.4% of total population) are over the age of 65, a population that frequently is subject to functional limitations that impact their ability to fully access mobile communications devices, a population expected to double by 2030. People with disabilities are estimated to have over $175 billion in discretionary spending power[6]. Clearly these populations are impacted by technological trends and have an impact on the marketplace.[7] We also make note that the 31 million Americans who are deaf, or who have a hearing loss, represent a vital and growing market for advanced wireless devices, as evidenced by their use of cell phones[8], and wireless texting devices.[9]

In general, while a wide variety of advanced wireless technologies and services have become available in the U.S., significant issues involving access to, and affordability of, these technologies still exist for people with disabilities.

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[2] National Council on Disability. (2004). "Harris Survey Documents Trends Impacting 54 Million Americans."
[3] Fraser, Allan B. (2007). "Simplifying the Accessibility (Disability) Myth." *NFPA Journal*, May 1, 2007.
[4] Kochkin, S. MarkeTrak VII. (2005). "Hearing Loss Population Tops 31 Million People", *The Hearing Review*, Vol. 12(7) July, pp. 16-29.
[5] U.S. Census Bureau, (2002).
[6] U.S. Department of Justice. (2006). "Reaching out to customers with disabilities.".
[7] Wireless RERC. (2007). Survey of User Needs, 2007, preliminary findings, (in progress).
[8] Preliminary findings indicate that more that 80% of Americans who use hearing aids are also cell phone users (Wireless RERC. (2007). Survey of User Needs, 2007.
[9] Akamatsu, C. Tane; Mayer, Connie; and Farrelly, Shona. (2005). "An Investigation of Two-Way Text Messaging Use with Deaf Students at the Secondary Level, *The Journal of Deaf Studies and Deaf Education*, October 19, 2005.

Specifically we wish to comment on the following paragraph:

Additional deployment milestones (¶49)

In response to the FCC's solicitation of comment on additional technological and market constraints that should be considered when evaluating any additional future hearing aid compatibility deployments, ongoing Wireless RERC research suggests that consumers continue to have problems with the interoperability of cell phones and hear aids. In a recent Delphi Policy[10] study, an overwhelming majority of respondents, 92 percent, identified "device incompatibility or poor interoperability" specifically, hearing aid compatibility, as a very important or important issue with cell phones. Further, the Wireless RERC's Survey of User Needs (2002-present) continues to find evidence that consumers with hearing impairments have difficulty finding cell phones in the marketplace that are compatible enough with hearing aids.[11]

Preliminary findings reveal that of 1208 respondents to the RERC's Survey of User Needs, more than 20% (N=247) use hearing aids with their wireless devices. Of these hearing aid users, 19.3% indicated that the mobile wireless device they use is either "hard to use", or they "can't use it without help." When asked to rank the most important features of mobile wireless devices, 65% of these people ranked "compatibility with hearing aids" as their primary concern.

[10] Baker, Paul M.A., Nathan W. Moon, Alan Bakowski. (2007).. "Access to Wireless Technologies for People with Disabilities: Issues, Opportunities and Policy Options: Findings of a Policy Delphi." Wireless RERC Technical Paper. Atlanta, Georgia: Wireless RERC /Center for Advanced Communications Policy (CACP), Georgia Institute of Technology. July, 2007.

[11] Preliminary findings of the Wireless RERC (2007). "Survey of User Needs," 2007 (in progress).

The Wireless RERC also conducted a separate survey in 2007 of cell phone users with hearing aids or cochlear implants. Of 102 respondents, 64 (62.7%) said that it was "difficult" or "very difficult" to find a phone that works with the hearing technology they use.

These findings reveal that cell phone users with hearing impairments are running up against barriers to full usability of their device which could be addressed through the regulatory process. The Wireless RERC believes that the FCC needs to expand the rules on hearing aid compatible phones to increase the number of models available with M4/T4 compatibility.

Existing advanced telecommunication services allow people with disabilities to more fully participate in community life, and these services have enriched the lives of countless Americans with disabilities. Increased deployment of new services, and access to cost-effective advanced telecommunications services will only further the goals of accessibility set forth by Congress, the Commission, the Americans with Disabilities Act, and President George W. Bush's New Freedom Initiative.

Respectfully submitted,

Paul M.A. Baker, Director of Research

In consultation with
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Dated this 20th day of December 2007